



When Marine transportation stops,... So does everything else



What Do Ports Do?

- ◆ Over 95% of overseas trade enters through U.S. Seaports
- ◆ Our seaports account for 2 billion tons and \$948.7 billion of Domestic and international freight each year
- ◆ 26,000 miles of commercially navigable waterways serving 361 U.S. ports
- ◆ Seaborne shipment of approximately 3.3 Billion barrels of oil each year

What Do Ports Do? (continued)

- ◆ 6 million cruise ship passengers travel each year from U.S. ports
- ◆ Ferry systems transport 180 million passengers each year
- ◆ 38,561,494 TEUs moved via US Ports in 2004. This averages to 105,648 TEUs per day.

Interlude... Port 101

- ◆ What the heck is a TEU? A “TEU” is a “Transportation Equivalent Unit”
- ◆ A “TEU” is equivalent to one 20 foot container.



Port of Seattle

Interlude... Port 101

- ◆ Isn't a barrel 55 gallons? NO! Barrels in the Maritime World equate to 42 U.S. Gallons.
- ◆ Well, certainly a ton is 2,000 pounds, right? NO! In the Maritime World a ton or tonne is derived from Old English tunne, and referred originally to a large cask with a capacity of 252 gallons of wine, which holds approximately 2,100 pounds of water.
- ◆ We won't go into short tons, long tons, metric tons, ICT tonnage, etc,...

Now We're Talking Tons!



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- ◆ Ferry systems transport 180 million passengers each year
- ◆ 38,561,494 TEUs moved via US Ports in 2004. This averages to 105,648 TEUs per day.
- ◆ Some 8,100 foreign vessels making 50,000 U.S. port calls each year
- ◆ Domestic and international trade is expected to double in next 20 years

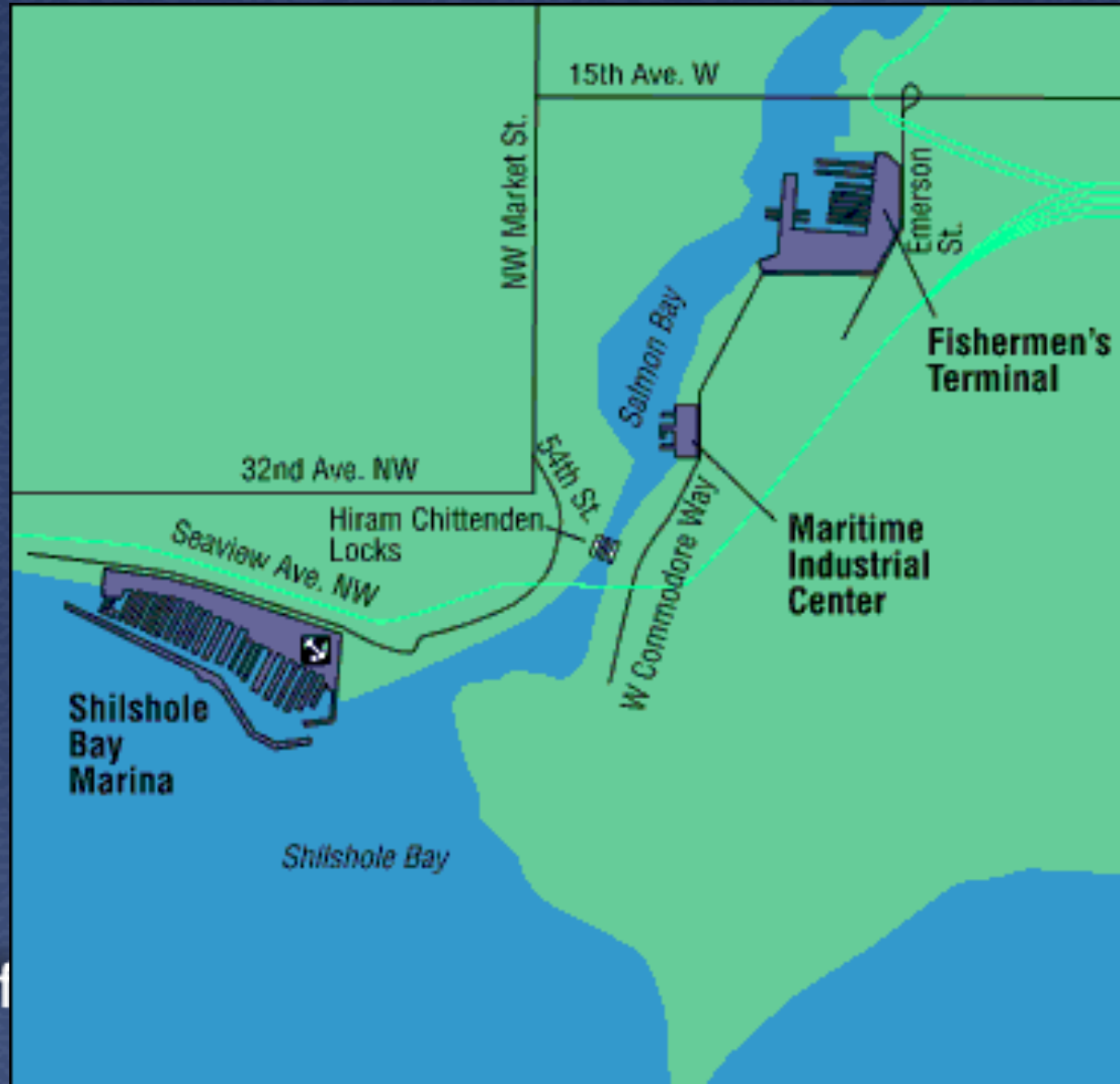
Closer to Home



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Closer to Home...

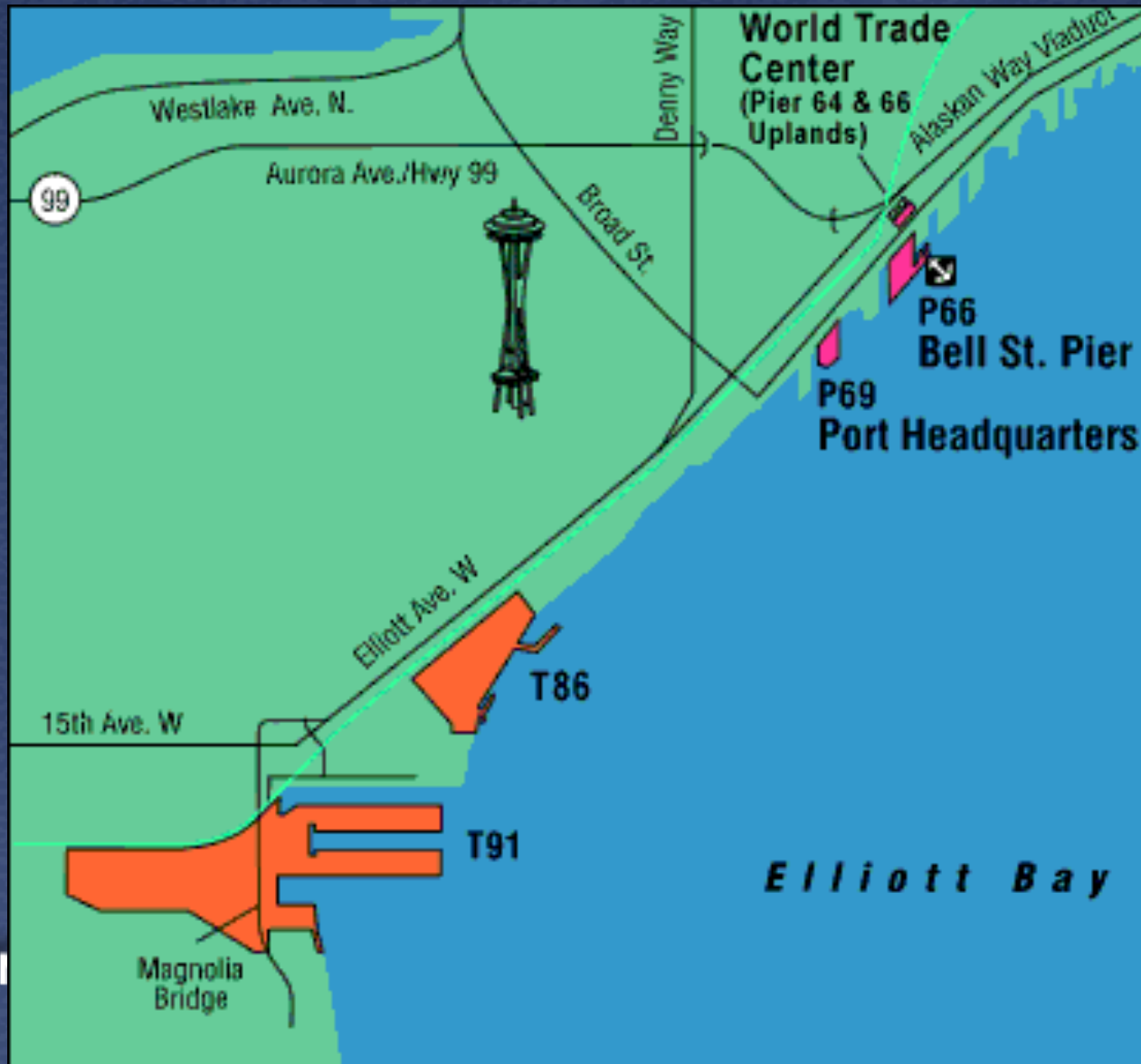
The Port of Seattle



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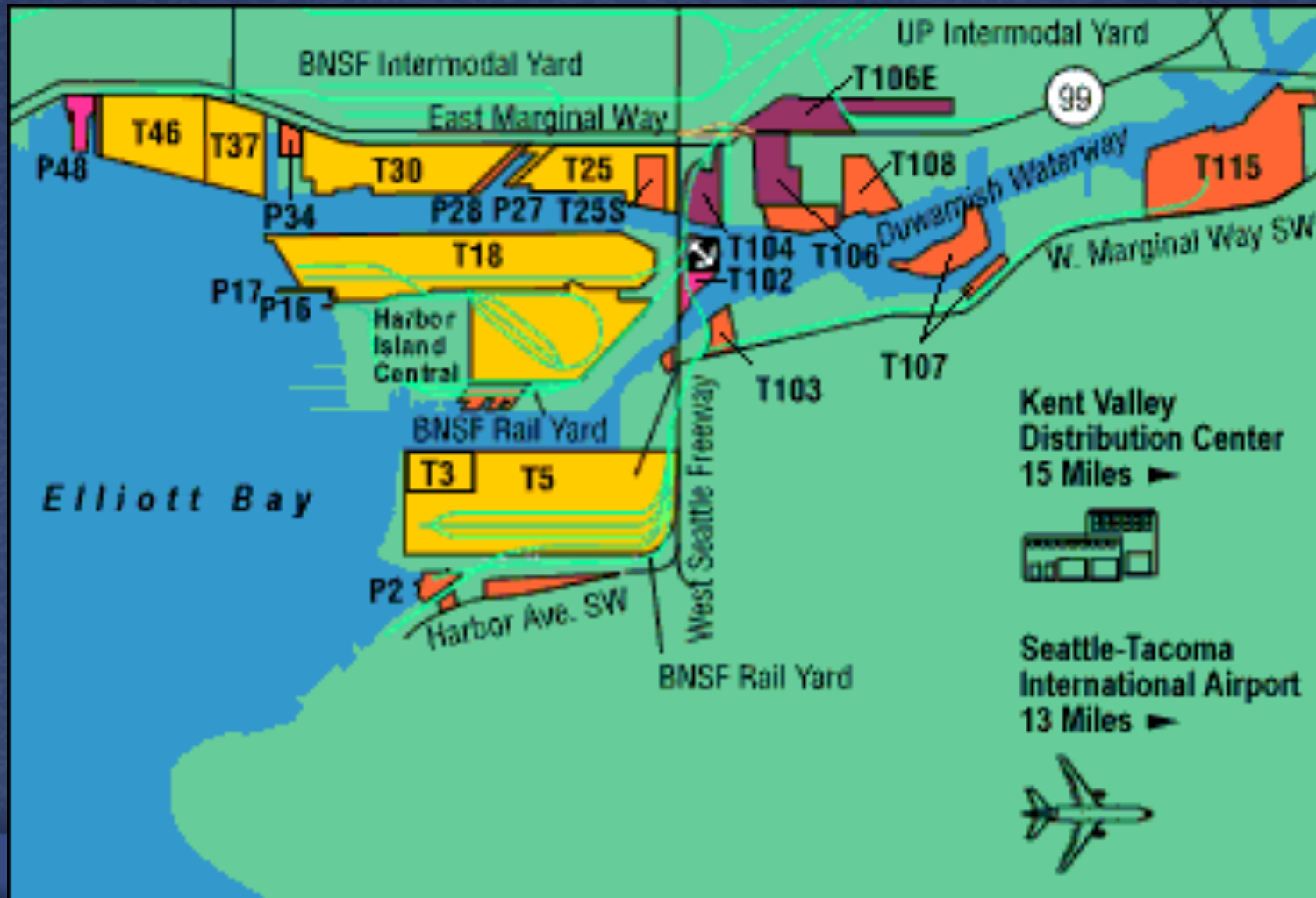
Closer to Home...

The Port of Seattle



Closer to Home...

The Port of Seattle



What Does The Port of Seattle Do?

- ◆ \$29.2 Billion worth of merchandise moved via the Port of Seattle in 2004
- ◆ North America's fastest growing container port in 2005 as a record 2,088,000 TEUs
- ◆ 1,345 Vessel Ports of Call in 2005
- ◆ 190 Cruise Ship Visits with 735,000 passengers for 2006

What Does The Port of Seattle Do? (Continued)

- ◆ The Port's grain terminal at Pier 86 handled the second highest volume on record - 5.05 million metric tons of corn and soybeans
- ◆ Creates over 34,501 jobs
- ◆ Creates \$2,464,382,000 in revenue for the region
- ◆ \$431,300,000 in local purchases directly supporting the Port and its tenants.

Thanks for the Education What Now?

- ◆ Why are Ports Important and What does all of this have to do with a Communications Academy?

Good Question!

We'll get there in just a minute...

Case Study...

2002 Labor Lock Out Impacts



Port of Seattle

2002 Labor Lock Out Impacts

- ◆ During the 2002 lockout, estimated cost to the US economy were between \$1 and \$2 Billion per day.
- ◆ Hawaii depends on ocean shipments for approximately 90% of its goods and 65% of its food. Back to school items arrive in July



2002 Labor Lock Out Impacts

- ◆ Back to school items arrive in July
- ◆ Christmas items arrive in September and October. They will sometimes arrive in August if delays are expected
- ◆ The shut down of US ports can kill companies with just in time philosophies
- ◆ Some shippers forced to ship via air which is more costly. This increase in cost increases the retail cost of goods
- ◆ Layoffs happened in many industries because of the lock out

2002 Labor Lock Out Impacts

- ◆ Smaller companies are most hit because they normally can't afford the warehousing the big players have
- ◆ A domino effect happens as parts needed for jobs are held up at sea (especially factory jobs)
- ◆ US farmers impacted negatively as meat/poultry and fruit rot in containers at ports. During the 2002 lockout, the figure was estimated only as millions of dollars worth of goods

2002 Labor Lock Out Impacts

- ◆ Lockout impacted west coast ports because shippers/carriers are now using all water services to east coast as to not put all egg in one basket. East coast ports' share of Asia cargo is growing each year
- ◆ The longer the closure, the longer it takes to recover. Ships are off schedule and some will sit in Asian ports
- ◆ The 2002 shut down lasted ten days, and it took an estimated 10 weeks to recover, causing between \$10 -20 Billion in damages



The Nisqually Earthquake

February 28, 2001



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What Happened



Sand boils found along a crack with a maximum measured vertical drop of 13 cm. The crack extends for a length of approximately 100 meters.

What Happened

South to north view of crack along the contact between the pile supported structure over which the cranes operate and the earth fill over which the containers are stored. The opening of the crack is approximately 2 cm to 3 cm and the vertical offset is 4 cm to 5 cm.



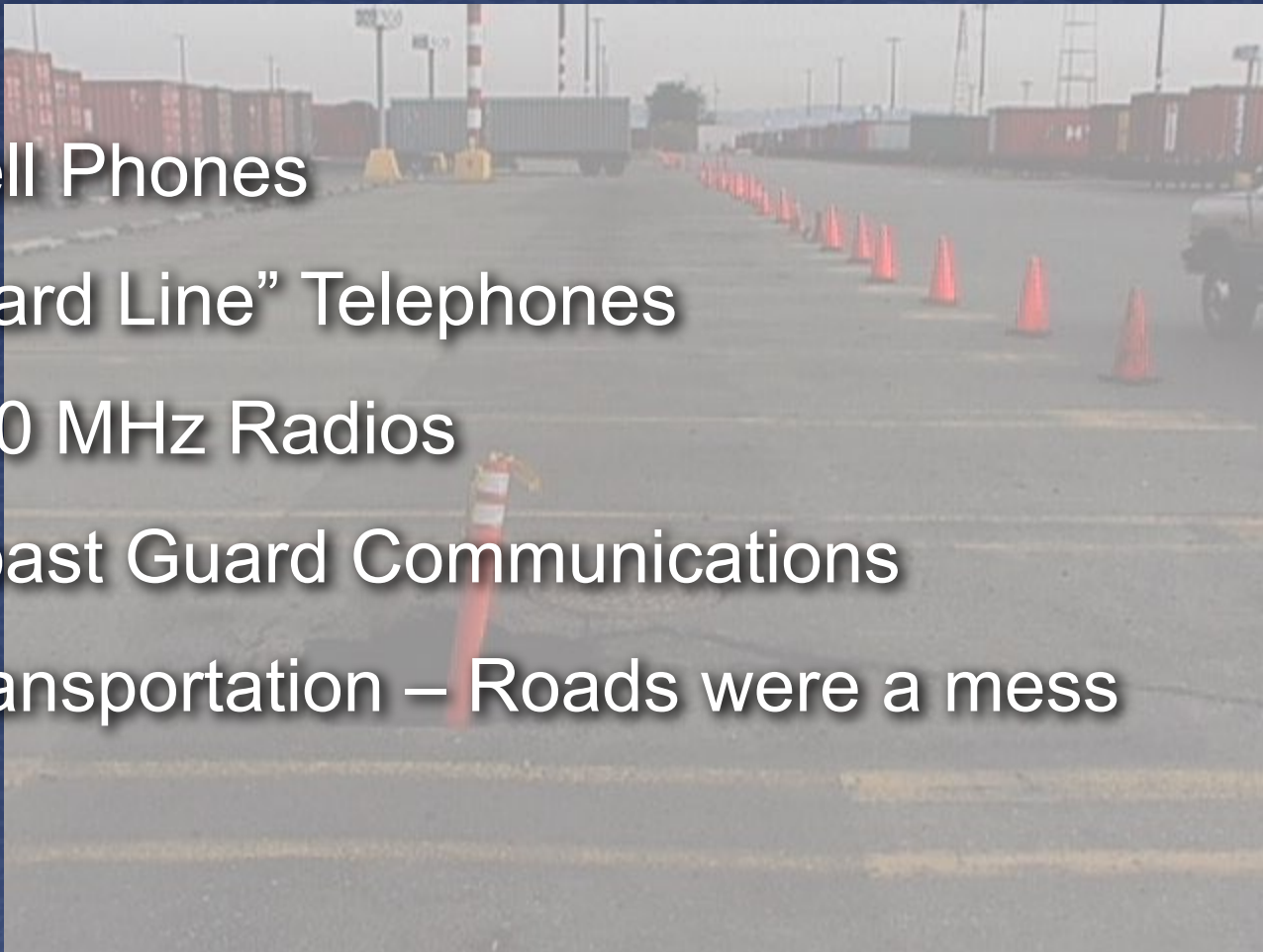
What Worked and What Didn't



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What Did Not Work

- ◆ Cell Phones
- ◆ “Hard Line” Telephones
- ◆ 800 MHz Radios
- ◆ Coast Guard Communications
- ◆ Transportation – Roads were a mess



What Did Work

- ◆ People
- ◆ Cooperation
- ◆ Amateur Radio
- ◆ Rapid Damage Assessment
- ◆ Rapid Restoration of Operations



What You Can Do To Get Things Rolling Again



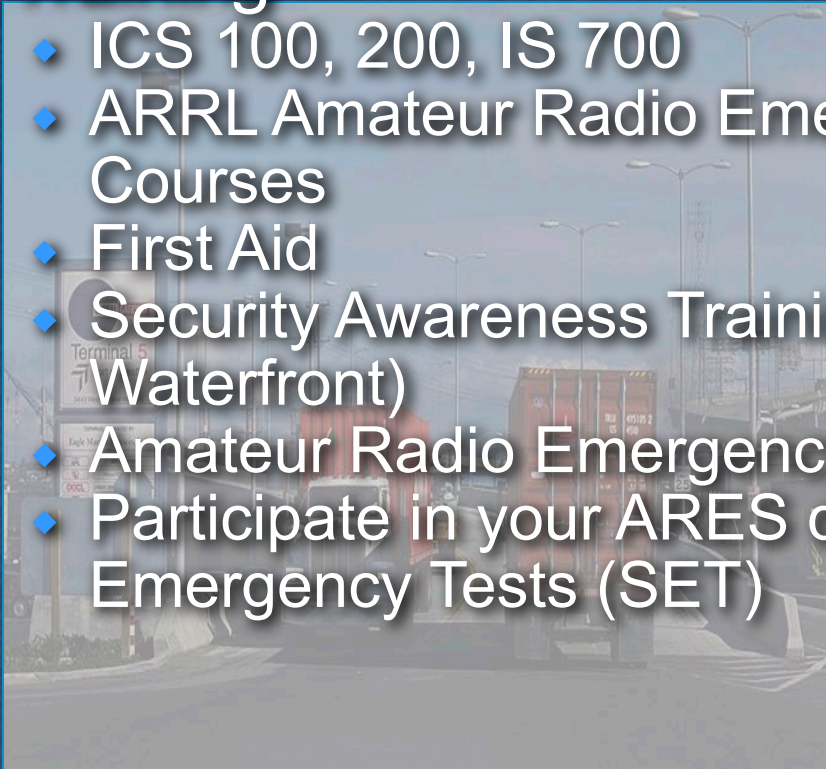
What You Can Do

- ◆ Be Prepared, Trained and Ready
- ◆ Don't Count on Government Agencies
- ◆ Choose an Agency to Support
- ◆ Work with the Agency BEFORE the Disaster
- ◆ Help Restore Vital Communications

What You Can Do

◆ Training

- ◆ ICS 100, 200, IS 700
- ◆ ARRL Amateur Radio Emergency Communications Courses
- ◆ First Aid
- ◆ Security Awareness Training (To work on the Waterfront)
- ◆ Amateur Radio Emergency Communications
- ◆ Participate in your ARES drills, nets and Simulated Emergency Tests (SET)



What You Can Do

- ◆ Be Self Sufficient
 - ◆ Agencies cannot support additional resource requirements
 - ◆ Government agencies are working on self preservation
 - ◆ Have everything you need for the duration
 - ◆ Take an equally qualified and trained buddy. You are of no value if you are exhausted.

What You Can Do

- ◆ Work with a chosen Agency or Infrastructure
 - ◆ Get to know the business operations and needs
 - ◆ Know who they need to communicate with
 - ◆ Develop and exercise plans with the agencies
 - ◆ Know where equipment can be placed or staged
 - ◆ Get credentials before the event
 - ◆ Understand self activation and mobilization is key.
You can always go home and call it a good exercise.



What You Can Do

- ◆ Don't Rely on Repeaters
- ◆ Establish pre-designated frequencies and modes of operation
- ◆ Be prepared to support the Agency or Infrastructure with non "Ham" or communications assistance

By working together, the Port keeps working, and so does everything else.



Port of Seattle



Questions...